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C1/

Part B of the two-component system includes an alkylene glycol dimethacrylate (a difunctional methacrylate monomer) such as EGDM or propylene glycol dimethacrylate, an optional thixotrope and an antioxidant as described above, and an activator for the peroxy free-radical initiator. Alkylene glycol dimethacrylates are typically present in Part B in amounts of 5 to 99 percent. The activator may be a tertiary aromatic amine such as N,N-dimethyl-p-toluidine (DMPT), N,N-dimethylaniline (NNDMA), N,N-diethylaniline, or 4,4'-methylenebis (N,N-dimethylaniline) (MBNNDMA). The activator may be present in any effective amount, generally from about 0.5 to about 5.0 percent by weight of the Part B formulation.

This amendment of page 11 is submitted to correct a typographical error in the disclosure. Additional support for the amendment is found in original claims 56 and 63.

In the claims:

Please cancel claims 7 and 16-87 without prejudice.

Please add new claims 88-100.

88. The reaction product of claim 15 further comprising ~~and~~ a thickener, a thixotrope, an adhesion promoter, or combination thereof.

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89. The reaction product of claim 15 wherein for Part A the monomer is selected from the group consisting of methyl methacrylate, methacrylic acid, isobornyl methacrylate, ethylene glycol dimethacrylate, ethoxylated bisphenol A diacrylate esters, tetraethylene glycol dimethacrylate, diethylene glycol dimethacrylate, diethylene glycol diacrylate, tris (2-hydroxyethyl) isocyanurate triacrylate, an alkyl ester of acrylic acid, a hydroxy alkyl ester of acrylic acid, a hydroxy alkyl ester of methacrylic acid, butyleneglycol dimethacrylate, tetraethyleneglycol dimethacrylate, polyethylene glycol dimethacrylate, bisphenol A dimethacrylate, ethoxylated bisphenol A dimethacrylate, pentaerythritol dimethacrylate, butyleneglycol trimethacrylate, tetraethyleneglycol trimethacrylate, polyethylene glycol trimethacrylate, bisphenol A trimethacrylate, ethoxylated bisphenol A trimethacrylate, and pentaerythritol trimethacrylate.

90. The reaction product of claim 15 wherein any other monomers present are in amounts ranging from about 5 to about 30 percent based on weight of the total formulation.

91. The reaction product of claim 15 wherein the free-radical initiator is benzoyl peroxide (BPO), cumene hydroperoxide, or a combination thereof.

92. The reaction product of claim 15 further comprising fused silica in Part A.

93. The reaction product of claim 15 wherein the antioxidant is hydroquinone, benzoquinone, or a combination thereof.

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94. The reaction product of claim 15 wherein in Part B the difunctional methacrylate monomer is ethylene glycol dimethacrylate or propylene glycol dimethacrylate.

95. The reaction product of claim 15 wherein in Part A the monomer is ethylene glycol dimethacrylate or propylene glycol dimethacrylate.

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96. The reaction product of claim 15 wherein in Part B the N,N-disubstituted aromatic amine is N,N-dimethyl-p-toluidine, N,N-dimethylaniline, N,N-diethylaniline, or 4,4'-methylenebis (N,N-dimethylaniline).

97. The reaction product of claim 15 wherein the N,N-disubstituted aromatic amine is present in an amount of from about 0.5 to about 5.0 percent by weight of Part B.

98. The reaction product of claim 15 wherein the amounts of parts A and B are at a volume ratio of part A to part B of about 1:1.

99. The reaction product of claim 15 wherein in part A at least one monomer is an alkylene glychol dimethacrylate.

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100. The system of claim 1 wherein in part A at least one monomer is an alkylene glycol dimethacrylate.

Please enter the rewritten, clean versions of all the pending claims as provided below.  
Attached at the end of this paper is an Appendix providing an indication of the changes relative to the prior version of the claims, as now required by Rule 121(c).

1. (Amended) A two-part adhesive system, comprising:

(a) an adhesive part A, which comprises:

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a monomer selected from the group consisting of a monofunctional acrylate monomer, a difunctional acrylate monomer, a trifunctional acrylate monomer, a monofunctional methacrylate monomer, a difunctional methacrylate monomer, a trifunctional methacrylate monomer, and a combination thereof;

a peroxide or hydroperoxide free-radical initiator; and  
an antioxidant;

(b) an activator part B, which comprises:

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a N,N-disubstituted aromatic amine,  
a difunctional methacrylate monomer,  
an antioxidant,

wherein the difunctional methacrylate monomer is present in an amount of from 10 to 80 percent by weight based on the total weight of the adhesive system, and wherein the difunctional methacrylate monomer is an alkylene glycol dimethacrylate.

2. The system of claim 1 further comprising and a thickener, a thixotrope, an adhesion promoter, or combination thereof.

3. (Amended) The system of claim 1 wherein for Part A the monomer is selected from the group consisting of methyl methacrylate, methacrylic acid, isobornyl methacrylate, ethylene glycol dimethacrylate, ethoxylated bisphenol A diacrylate esters, tetraethylene glycol dimethacrylate, diethylene glycol dimethacrylate, diethylene glycol diacrylate, tris (2-hydroxyethyl) isocyanurate triacrylate, an alkyl ester of acrylic acid, a hydroxy alkyl ester of acrylic acid, a

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A4

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hydroxy alkyl ester of methacrylic acid, butyleneglycol dimethacrylate, tetraethyleneglycol dimethacrylate, polyethylene glycol dimethacrylate, bisphenol A dimethacrylate, ethoxylated bisphenol A dimethacrylate, pentaerythritol dimethacrylate, butyleneglycol trimethacrylate, tetraethyleneglycol trimethacrylate, polyethylene glycol trimethacrylate, bisphenol A trimethacrylate, ethoxylated bisphenol A trimethacrylate, and pentaerythritol trimethacrylate.

4. (Amended) The system of claim 1 wherein any other monomers present are in amounts ranging from about 5 to about 30 percent based on weight of the total formulation.

5. The system of claim 1 wherein the free-radical initiator is benzoyl peroxide (BPO), cumene hydroperoxide, or a combination thereof.

6. The system of claim 1 further comprising fused silica in Part A.

7. (Canceled.)

8. The system of claim 1 wherein the antioxidant is hydroquinone, benzoquinone, or a combination thereof.

9. The system of claim 1 wherein in Part B the difunctional methacrylate monomer is ethylene glycol dimethacrylate or propylene glycol dimethacrylate.

10. The system of claim 1 wherein in Part A the monomer is ethylene glycol dimethacrylate or propylene glycol dimethacrylate.

11. The system of claim 1 wherein in Part B the difunctional methacrylate monomer is present in an amount of from about 5 percent to about 99 percent.

12. The system of claim 1 wherein in Part B the N,N-disubstituted aromatic amine is N,N-dimethyl-p-toluidine, N,N-dimethylaniline, N,N-diethylaniline, or 4,4'-methylenebis (N,N-dimethylaniline).

13. The system of claim 1 wherein the N,N-disubstituted aromatic amine is present in an amount of from about 0.5 to about 5.0 percent by weight of Part B.

14. The system of claim 1 wherein the amounts of parts A and B are at a volume ratio of part A to part B of about 1:1.

15. (Amended) The reaction product formed from a two-part adhesive system comprised of a part A and a part B, wherein part A and part B comprise:

(a) an adhesive part A, which comprises:

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a monomer selected from the group consisting of a monofunctional acrylate monomer, a difunctional acrylate monomer, a trifunctional acrylate monomer, a monofunctional methacrylate monomer, a difunctional methacrylate monomer, a trifunctional methacrylate monomer, and a combination thereof;

a peroxide or hydroperoxide free-radical initiator; and

an antioxidant;

(b) an activator part B, which comprises:

a N,N-disubstituted aromatic amine,

a difunctional methacrylate monomer,

an antioxidant,

wherein the difunctional methacrylate monomer is present in an amount of from 10 to 80 percent by weight based on the total weight of the adhesive system, and wherein the difunctional methacrylate monomer is an alkylene glycol dimethacrylate.

Claims 16-87 have been canceled.

#### REMARKS

Claims 1 and 15 have been amended to call for 10 to 80 percent by weight of the difunctional methacrylate in the claimed system. This amendment finds support at page 9, line 26 through page 10, line 5. Claims 1 and 15 have also been amended to recite that the difunctional methacrylate is an